

WHAT IS CLAIMED IS:

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1. A data management framework for a data communications network including a client and a server in communication with the client, characterized in that the server provides a dynamically constructed model of elements of the data communications network, the model providing a uniform programming interface for allowing the client to dynamically access the elements and dynamically add new elements in performing network management functions.

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2. The data management framework of claim 1, wherein the model is constructed using object oriented programming techniques.

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3. The data management framework of claim 2, wherein each element is represented as an object instance that is self-descriptive.

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4. The data management framework of claim 1, wherein the model is associated with an application service provided by the data communications network.

5. The data management framework of claim 4, wherein the application service is a policy management service.

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6. A data management framework for a data communications network, the data management framework comprising:

an application service providing application functions for the network;

a modeling tool for creating a dynamic model of elements associated with the application service; and

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5 a uniform programming interface providing dynamic access to the elements for performing network management functions.

7. The data management framework of claim 6, wherein the application service is a policy management service.

10 8. The data management framework of claim 6, wherein the model is created using object oriented programming techniques.

15 9. The data management framework of claim 8, wherein each element is represented as an object instance that is self-descriptive.

20 10. The data management framework of claim 6, wherein the uniform programming interface allows the dynamic addition of elements into the model.

25 11. The data management framework of claim 6, wherein the uniform programming interface allows the dynamic addition of a new application service for being represented by a model.

30 12. A data management framework for policy management, the data management framework including a dynamically constructed model of a plurality of policy-related elements, the model providing a uniform programming interface for allowing dynamic access of the policy-related elements and dynamic addition of new policy-related elements in performing network management functions.

35 13. The data management framework of claim 12, wherein the model is constructed using object oriented programming techniques.

5 14. The data management framework of claim 13, wherein each policy-related element is represented as an object instance that is self-descriptive.

10 15. A method for data management in a data communications network, the method comprising the steps of:

providing an application service for the network;

15 creating a dynamic model of elements associated with the application service; and providing a uniform programming interface for providing dynamic access to the elements for performing network management functions.

20 16. The method of claim 15, wherein the application service is a policy management service.

25 17. The method of claim 16, wherein the step of creating the model comprises the step of utilizing object oriented programming techniques.

30 18. The method of claim 17, wherein the step of creating the model comprises the step of creating an object instance representing each element of the model.

35 19. The method of claim 14 further comprising the step of dynamically adding new elements into the model.

20. The method of claim 14 further comprising the step of dynamically adding a new application service for being represented by a new data model.